

ARTIFICIAL GROUND STRUCTURE

ABSTRACT

To provide an artificial ground structure in which earthquake resistance is improved by energy absorption due to plastic deformation of bearing piles corresponding to vibration caused by a large earthquake, the artificial ground structure including the bearing piles having a large protruding amount from the ground. An artificial ground structure of the present disclosure includes bearing piles driven into ground in lines in a first direction, in which an artificial ground extends, and in a second direction intersecting with the first direction, upper end panel point parts installed on upper ends of the bearing piles, a first girder part configured to connect two adjacent upper end panel point parts of the upper end panel point parts, and a floor slab installed on the upper end panel point parts and the first girder part, wherein the bearing piles are set such that a hysteresis curve for horizontal displacement and horizontal load when the bearing piles receive a level 2 earthquake motion has a spindle shape.

Fig. 1